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December 22, 2015

**VIA FEDEX**
TSCA Confidential Business Information Center (7407M)
WJC East - Room 6428
Attn: Section 8(e)
U.S. Environmental Protection Agency
1201 Constitution Avenue, NW
Washington, DC 20004-3302

**Re: Supplement #4 to May 16, 2014 TSCA 8(e) Submission: Perfluorocarbons Detected in Water Supply Wells and Groundwater Monitoring Samples**

Dear Sir/Madam:

Solvay Specialty Polymers USA, LLC (Solvay) is making this submission to the U.S. Environmental Protection Agency (EPA) pursuant to the Toxic Substances Control Act (TSCA) (15 U.S.C. § 2601 *et seq.*) Section 8(e), as a supplement to a previous submission dated May 16, 2014, and earlier supplements.

With regard to perfluorononanoic acid (PFNA, CASRN 375-95-1) detected in water supply wells and groundwater, Solvay's previous submissions focused on a drinking water advisory issued by the New Jersey Department of Environmental Protection (NJDEP) and the New Jersey Department of Health (NJDOH) related to findings of PFNA in the public water system of Paulsboro, New Jersey, at levels on the order of 100 parts per trillion (ppt) to 150 ppt in one particular water supply well.[1] That limited advisory was specifically targeted to infants up to the age of one year, which NJ officials issued "out of an abundance of caution." Although Solvay did not believe sufficient scientific basis existed to establish a concern level for PFNA at 100 ppt or 150 ppt, Solvay viewed the advisory as a potentially relevant level for TSCA 8(e) reporting purposes in the absence of any applicable state or federal drinking water regulations for PFNA.

Solvay made its previous submissions despite the fact that Solvay ceased use of PFNA in 2010 and believes it no longer has any obligation under TSCA section 8(e) for PFNA.

[1] *See* NJDOH, "Perfluorinated Chemicals in the Paulsboro Public Drinking Water System," *available at:* http://nj.gov/health/eohs/pfc_in_drinkingwater.shtml.

On November 25, 2015, NJDEP promulgated an Interim Specific Groundwater Quality Criterion (ISGWQC) for PFNA of 10 ppt.[2] This follows a draft ISGWQC issued by NJDEP on March 14, 2014, for PFNA of 20 ppt, on which Solvay submitted extensive comments. NJDEP's new 10 ppt groundwater standard for PFNA is unprecedented worldwide and is not, in Solvay's view, reasonably supported by existing scientific literature.[3] Furthermore, NJDEP reaches the 10 ppt level for groundwater based on a significant number of deviations from generally accepted scientific norms as evidenced by the recent peer-reviewed ATSDR draft report regarding the weight of data and significance of various exposure sources.[4] Moreover, Solvay has initiated a legal appeal of the new standard in light of numerous legal infirmities associated with NJDEP's action and the standard. Nevertheless, in light of this new State standard and EPA's 8(e) guidance that "information about contamination found at or above benchmarks that trigger regulatory requirements…is to be considered for possible reporting, based on potential exposure to humans and/or non-human organisms and other relevant factors,"[5] Solvay is making this supplemental submission.

As noted in previous submissions, Solvay has conducted groundwater monitoring and has sampled private and municipal drinking water wells for certain PFCs in a broad geographic area in which Solvay's West Deptford, New Jersey, facility is located to determine if, and to what extent, PFCs may exist in groundwater and water supply wells. Solvay is now reporting PFNA values from this testing above 10 ppt, which are detailed in the enclosed table. Consistent with Solvay's coordinated approach with NJDEP and EPA Region 2, specific street addresses are not being provided in this public document to protect the privacy of local residents. No determination has been made that the PFNA detected at any of these locations originated at the Solvay facility.

Although other PFCs have been and are being analyzed, detected and subsequently reported to both NJDEP and EPA in connection with Solvay's ongoing sampling efforts, the State of NJ currently has no "benchmarks that trigger regulatory requirements" for PFOA, PFOS or other PFCs. For context, however, Solvay has obtained no new data for other PFCs that exceed the relevant EPA Office of Water Provisional Health Advisory (PHA) of 200 ppt for PFOS and 400 ppt for PFOA, since Supplement #1 on July 11, 2014. PFOA levels above

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[2] *See* Ground Water Quality Standards N.J.A.C. 7:9C: Interim Ground Water Quality Criteria Table, *available at:* http://www.nj.gov/dep/wms/bears/gwqs_interim_criteria_table.htm.

[3] For example, the U.S. Department of Health and Human Services, Agency for Toxic Substances and Disease Registry (ATSDR) released a revised draft toxicological profile for perfluoroalkyl compounds (PFCs) that found that there are insufficient data to derive a minimum risk level (MRL) for PFNA. *See* ATSDR, "Draft Toxicological Profile for Perfluoroalkyls," *available at:* http://www.atsdr.cdc.gov/toxprofiles/tp200.pdf.

[4] See items 3, 4, 5 and 6 of the attached report: *Toxicology Study Reviews of Perfluoroalkyl Compounds (PFCs) prepared for Solvay by Integral Consulting – Key Differences Between ATSDR and NJDEP – September 2015 (Revised).*

[5] *TSCA Section 8(e); Notification of Substantial Risk; Policy Clarification and Reporting Guidance*, 68 Fed. Reg. 33,129, 33,138 (June 3, 2003).

NJDEP's preliminary health based guidance for drinking water of 40 ppt have been found and have been noted in prior Supplements to the Section 8(e) notice.

Although information on the environmental presence of chemical substances at or above regulatory thresholds is to be considered for potential reporting, we also note that EPA's guidance limits such reporting to "widespread and previously unsuspected distribution" in the environment when there is known significant exposure to humans or there is a substantial likelihood that such exposure will occur.[6] In May of this year, NJDEP developed a map of the area where PFNA contamination might be suspected based on NJDEP's analysis, which Solvay neither adopts nor accepts. As noted above, no determination has been made that the PFNA detected at any location within this area originated at the Solvay facility. NJDEP's map is enclosed with this submission. In light of this map and the confirming values reported in this submission, NJDEP apparently would not find it unexpected to identify additional PFNA environmental sampling and analytical results above 10 ppt within the mapped area.

On a prospective basis, Solvay's position is that the discovery of specific additional sites within the mapped area that exceed 10 ppt of PFNA would not constitute new evidence of substantial risk as to which the Administrator was not adequately informed and, therefore, further reporting of such findings, even on a voluntary basis, under section 8(e) would be inappropriate. Similarly, it is apparent from the original and earlier Supplements to this section 8(e) notice that PFOA exists above NJDEP's preliminary health based guidance for drinking water at 40 ppt in some of the samples. Unless PFCs are found as part of Solvay's PFNA monitoring efforts above applicable EPA PHAs, Solvay considers such levels to also be not unexpected and, therefore, not appropriate for further reporting under Section 8(e). Thus, no new data for non-PFNA PFCs are included with this submission

Nothing in this letter is considered confidential business information. Consistent with, and for the reasons stated in Solvay's May 16, 2014, letter and subsequent submissions, this supplemental information is being voluntarily submitted as a precautionary measure and because we believe EPA's TSCA 8(e) personnel would wish to be aware of it. Actions taken by Solvay, including the submission of this report, should not be taken to mean that Solvay recognizes or admits there is any health issue with respect to the identified PFCs at the detected levels or that Solvay is in any way responsible for these substances if they are found; other sources have contributed to ambient PFC levels in the environment. Moreover, the pattern of the PFC findings described in this and previous submissions indicate that other sources exist.

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[6] 68 Fed. Reg. at 33,138.

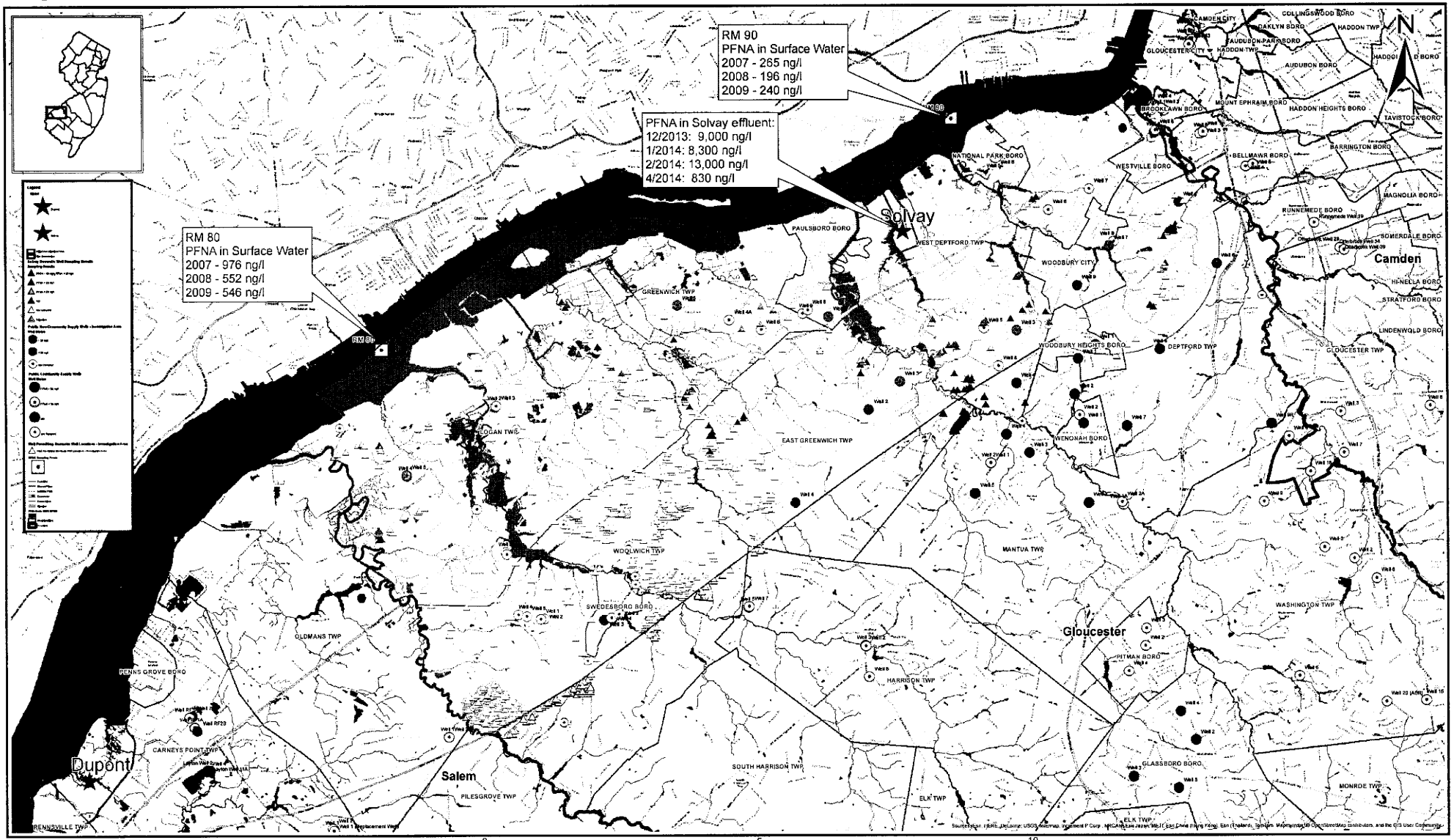
If you have any questions or require additional information regarding this submission, please do not hesitate to contact me.

Sincerely,

Charles M. Jones
West Deptford Site Manager
Solvay Specialty Polymers USA, LLC

Attachments: May 28, 2015, NJDEP GIS map depicting PFNA detections in wells
Toxicology Study Reviews of Perfluoroalkyl Compounds (PFCs) – Key Differences Between ATSDR and NJDEP – September 2015 (Revised)
Tables of PFNA findings above 10 ppt (Tables 1 & 2)
Map of PFNA findings above 10 ppt

# Public Supply Wells and Potential Domestic Wells in PRM Formation - PFNA Investigation




Map by Joe Stefanoni, SRP GIS
3-2015

## Toxicology Study Reviews of Perfluoroalkyl Compounds (PFCs) – Key Differences Between ATSDR and NJDEP – September 2015 (Revised)

On September 2, 2015, the U.S. Department of Health and Human Services, Agency for Toxic Substances and Disease Registry (ATSDR) released a revised draft toxicology review document, called a toxicological profile, for perfluoroalkyl compounds (PFCs). This federal agency's updated profile represents the most up-to-date toxicology review available for PFCs by the federal government. ATSDR reaches scientific conclusions on the existing toxicology data for PFCs, including perfluorononanoic acid (PFNA), that are materially different than key conclusions reached by the New Jersey Department of Environmental Protection (NJDEP) as to PFNA. These differences are particularly notable given ATSDR's previous receipt and consideration of extensive written comments from NJDEP's Office of Science and Department of Health, including a number of comments on which NJDEP relies to this day in proposing new PFNA standards. The updated August 2015 draft ATSDR profile has undergone Federal review and has been peer-reviewed by an expert nongovernmental panel. The final public comment period ends December 1, 2015.

Key differences between the two agency reviews are highlighted in the table below.

| | Topic | U.S. DHHS ATSDR | NJDEP |
|---|---|---|---|
| 1 | PFNA Toxicity | Existing data are insufficient to derive any toxicity value for PFNA (p.32) | Existing data are sufficient to derive a chronic toxicity value for PFNA |
| 2 | Chronic Toxicity | Existing data are insufficient to derive chronic toxicity values for any PFC (p.320) | Existing data are sufficient to derive a chronic toxicity value for PFNA |
| 3 | Relevance of Rodent Data | For all PFCs, rodent data are not appropriate and would be overly conservative for use in deriving human toxicity standards (pp. 24-25, 32) | Rodent data are appropriate to use to derive human standards |
| 4 | Epidemio-logical Studies | Human data are insufficient for derivation of toxicity values for all PFCs due to inconsistent and equivocal results, weak statistical associations, and potential confounding (p. 24) | Human data provide a supporting line of evidence for toxicity evaluation |
| 5 | Relative Source Contribution | Drinking water ingestion is the predominant exposure route for PFCs for communities near fluorochemical facilities (p.356) | Drinking water ingestion contributes only 50% to the total exposure to PFNA |
| 6 | PFNA Sources | Consistent with comments from NJDEP in 2009, PFNA and other PFCs may occur in the environment as a result of degradation of chemicals in fire-fighting foams (e.g., 8:2 fluorotelomer alcohol) (pp. 312, 361) | Currently, fire fighting foams are not being considered a relevant source of PFNA in the environment |
| 7 | Drinking Water Equivalent | Proposed intermediate MRLs translate into drinking water advisories of 350 ppt for PFOA and 525 ppt for PFOS; there are insufficient data to develop an MRL for PFNA | Proposes PFNA groundwater and drinking water standards at 10 ppt and 13 ppt, respectively |

Sources:

ATSDR 2015. Draft Toxicological Profile for Perfluoroalkyls. August. http://www.atsdr.cdc.gov/toxprofiles/tp200.pdf

NJDEP 2015. Revised Draft Interim Specific Groundwater Quality Criterion for PFNA. April. http://nj.gov/dep/dsr/pfna/index-April2015.htm

Notes: MRL = minimum risk level; ppt = parts per trillion

**Table 1. Summary of Sample Results for PFNA between 0.01 and 0.100 parts per billion (ppb) or micrograms per liter (µg/L)**

| Study Investigation | Study | Location ID | Sample Matrix | Sample Type | Sample ID | Field Duplicate | Upper Depth | Lower Depth | Units | PFNA | Flag | Count of Unique Locations |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Monitoring Wells | OnsiteOffsiteSampling | MW-10X | Groundwater | | GW0011_20140312 | | | | µg/L | 0.015 | U | 1 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-5X | Groundwater | | GW0023_20140312 | | | | µg/L | 0.016 | U | 2 |
| Monitoring Wells | OnsiteOffsiteSampling | PZ-3D | Groundwater | | GW0004_20140418 | | | | µg/L | 0.018 | U | 3 |
| Municipal Water Supply | PWS Sampling | Ambulance Bldg Utility Sink | DrinkingWater | Drinking Water | GW0080_20140325 | | | | µg/L | 0.065 | | 4 |
| Municipal Water Supply | PWS Sampling | Ambulance Bldg Utility Sink | DrinkingWater | Drinking Water | GW0123_20140424 | | | | µg/L | 0.017 | | |
| Municipal Water Supply | PWS Sampling | Ambulance Bldg Utility Sink | DrinkingWater | Drinking Water | GW0180_20141009 | | | | µg/L | 0.016 | | |
| Municipal Water Supply | PWS Sampling | EG-PWS-3 | DrinkingWater | Treated Water | GW0028 | | | | µg/L | 0.024 | | 5 |
| Municipal Water Supply | PWS Sampling | EG-PWS-3 | DrinkingWater | Treated Water | GW0029 | | | | µg/L | 0.023 | | |
| Municipal Water Supply | PWS Sampling | EG-PWS-3 | DrinkingWater | Raw Water | GW0030 | | | | µg/L | 0.021 | | |
| Municipal Water Supply | PWS Sampling | EG-PWS-3 | DrinkingWater | Raw Water | GW0031 | | | | µg/L | 0.022 | | |
| Municipal Water Supply | PWS Sampling | EG-PWS-3 | DrinkingWater | Raw Water | GW0107_20140424 | | | | µg/L | 0.035 | | |
| Municipal Water Supply | PWS Sampling | EG-PWS-3 | DrinkingWater | Raw Water | GW0109_20140424 | X | | | µg/L | 0.035 | | |
| Municipal Water Supply | PWS Sampling | EG-PWS-3 | Groundwater | Raw Water | GW0168_20140709 | X | | | µg/L | 0.035 | | |
| Municipal Water Supply | PWS Sampling | EG-PWS-3 | Groundwater | Raw Water | GW0169_20140709 | | | | µg/L | 0.035 | | |
| Municipal Water Supply | PWS Sampling | EG-PWS-3 | Groundwater | Raw Water | GW0176_20141002 | | | | µg/L | 0.041 | | |
| Municipal Water Supply | PWS Sampling | EG-PWS-3 | Groundwater | Raw Water | GW0178_20141002 | X | | | µg/L | 0.036 | | |
| Municipal Water Supply | PWS Sampling | FireHydrant - 1000 Broad St | DrinkingWater | Drinking Water | GW0081_20140325 | | | | µg/L | 0.018 | | 6 |
| Municipal Water Supply | PWS Sampling | FireHydrant - 1000 Broad St | DrinkingWater | Drinking Water | GW0082_20140325 | X | | | µg/L | 0.024 | | |
| Municipal Water Supply | PWS Sampling | FireHydrant - 1000 Broad St | DrinkingWater | Drinking Water | GW0124_20140424 | | | | µg/L | 0.015 | | |
| Municipal Water Supply | PWS Sampling | GR-Lake Park | DrinkingWater | Drinking Water | GW0119_20140424 | | | | µg/L | 0.053 | | 7 |
| Municipal Water Supply | PWS Sampling | GR-Lake Park | DrinkingWater | Drinking Water | GW0120_20140424 | X | | | µg/L | 0.051 | | |
| Municipal Water Supply | PWS Sampling | GR-LL Fields | DrinkingWater | Drinking Water | GW0121_20140424 | | | | µg/L | 0.012 | | 8 |
| Municipal Water Supply | PWS Sampling | GR-PWS-4A/6 | DrinkingWater | Treated Water | GW0060_20140206 | | | | µg/L | 0.012 | | 9 |
| Municipal Water Supply | PWS Sampling | GR-PWS-4A/6 | DrinkingWater | Treated Water | GW0115_20140424 | | | | µg/L | 0.012 | | |
| Municipal Water Supply | PWS Sampling | GR-PWS-4A/6 | Groundwater | Treated Water | GW0172_20140709 | | | | µg/L | 0.012 | | |
| Municipal Water Supply | PWS Sampling | GR-PWS-4A/6 | Groundwater | Treated Water | GW0174_20140709 | X | | | µg/L | 0.011 | | |
| Municipal Water Supply | PWS Sampling | GR-PWS-5 | DrinkingWater | Treated Water | GW0065_20140206 | | | | µg/L | 0.024 | | 10 |
| Municipal Water Supply | PWS Sampling | GR-PWS-5 | DrinkingWater | Treated Water | GW0066_20140206 | X | | | µg/L | 0.023 | | |
| Municipal Water Supply | PWS Sampling | GR-PWS-5 | DrinkingWater | Raw Water | GW0067_20140206 | | | | µg/L | 0.022 | | |
| Municipal Water Supply | PWS Sampling | GR-PWS-5 | DrinkingWater | Treated Water | GW0117_20140424 | | | | µg/L | 0.031 | | |
| Municipal Water Supply | PWS Sampling | GR-PWS-5 | DrinkingWater | Treated Water | GW0118_20140424 | X | | | µg/L | 0.032 | | |
| Municipal Water Supply | PWS Sampling | GR-PWS-5 | DrinkingWater | Raw Water | GW0116_20140424 | | | | µg/L | 0.026 | | |
| Municipal Water Supply | PWS Sampling | GR-PWS-5 | Groundwater | Raw Water | GW0173_20140709 | | | | µg/L | 0.023 | | |
| Municipal Water Supply | PWS Sampling | GR-PWS-6 | DrinkingWater | Raw Water | GW0064_20140206 | | | | µg/L | 0.012 | | 11 |
| Municipal Water Supply | PWS Sampling | GR-PWS-6 | DrinkingWater | Raw Water | GW0114_20140424 | | | | µg/L | 0.013 | | |
| Municipal Water Supply | PWS Sampling | Jessup tank-hydrant | DrinkingWater | Drinking Water | GW0056_20140123 | | | | µg/L | 0.012 | | 12 |
| Municipal Water Supply | PWS Sampling | Jessup tank-hydrant | Groundwater | Raw Water | GW0056 | | | | µg/L | 0.017 | U | |
| Municipal Water Supply | PWS Sampling | Jessup tank-hydrant | Groundwater | Raw Water | GW0057 | | | | µg/L | 0.017 | U | |
| Municipal Water Supply | PWS Sampling | NP-Borough Hall Tap | DrinkingWater | Drinking Water | GW0035 | | | | µg/L | 0.014 | J+ | 13 |
| Municipal Water Supply | PWS Sampling | NP-Borough Hall Tap | DrinkingWater | Drinking Water | GW0036 | | | | µg/L | 0.014 | J+ | |
| Municipal Water Supply | PWS Sampling | NP-PWS-5 | DrinkingWater | Treated Water | GW0037 | | | | µg/L | 0.014 | J+ | 14 |
| Municipal Water Supply | PWS Sampling | NP-PWS-5 | DrinkingWater | Treated Water | GW0038 | | | | µg/L | 0.015 | J+ | |
| Municipal Water Supply | PWS Sampling | NP-PWS-5 | DrinkingWater | Raw Water | GW0039 | | | | µg/L | 0.013 | J+ | |
| Municipal Water Supply | PWS Sampling | NP-PWS-6 | DrinkingWater | Raw Water | GW0040 | | | | µg/L | 0.011 | J+ | 15 |
| Municipal Water Supply | PWS Sampling | NP-PWS-6 | DrinkingWater | Treated Water | GW0152_20140508 | | | | µg/L | 0.012 | | |
| Municipal Water Supply | PWS Sampling | NP-PWS-6 | DrinkingWater | Treated Water | GW0153_20140508 | X | | | µg/L | 0.011 | | |
| Municipal Water Supply | PWS Sampling | NP-PWS-6 | DrinkingWater | Raw Water | GW0151_20140508 | | | | µg/L | 0.011 | | |
| Municipal Water Supply | PWS Sampling | NP-PWS-6 | DrinkingWater | Treated Water | GW0190_20140724 | X | | | µg/L | 0.010 | | |
| Municipal Water Supply | PWS Sampling | NP-PWS-6 | DrinkingWater | Treated Water | GW0185_20141009 | | | | µg/L | 0.011 | | |
| Municipal Water Supply | PWS Sampling | NP-PWS-6 | DrinkingWater | Treated Water | GW0186_20141009 | X | | | µg/L | 0.012 | | |
| Municipal Water Supply | PWS Sampling | PB - City Hall sink tap | DrinkingWater | Drinking Water | GW0103_20140410 | | | | µg/L | 0.093 | | 16 |

**Table 1. Summary of Sample Results for PFNA between 0.01 and 0.100 parts per billion (ppb) or micrograms per liter (µg/L)**

| Study Investigation | Study | Location ID | Sample Matrix | Sample Type | Sample ID | Field Duplicate | Upper Depth | Lower Depth | Units | PFNA | Flag | Count of Unique Locations |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Municipal Water Supply | PWS Sampling | PB - City Hall sink tap | DrinkingWater | Drinking Water | GW0165_20140708 | | | | µg/L | 0.015 | | |
| Municipal Water Supply | PWS Sampling | PB - City Hall sink tap | DrinkingWater | Drinking Water | GW0171_20140925 | | | | µg/L | 0.016 | | |
| Municipal Water Supply | PWS Sampling | PB - Port break area sink | DrinkingWater | Drinking Water | GW0104_20140410 | | | | µg/L | 0.064 | | 17 |
| Municipal Water Supply | PWS Sampling | PB - Port break area sink | DrinkingWater | Drinking Water | GW0166_20140708 | | | | µg/L | 0.016 | | |
| Municipal Water Supply | PB-GAC-ACT | PB-PWS-7 | MidTreatmentWater | PostGAC | F600Sample45_150214 | | | | µg/L | 0.012 | | 18 |
| Municipal Water Supply | PB-GAC-ACT | PB-PWS-7 | MidTreatmentWater | PostGAC | F600Sample50_150215 | | | | µg/L | 0.018 | | |
| Municipal Water Supply | PB-GAC-ACT | PB-PWS-7 | MidTreatmentWater | PostGAC | F600Sample58_150217 | | | | µg/L | 0.026 | | |
| Municipal Water Supply | PB-GAC-ACT | PB-PWS-7 | MidTreatmentWater | PostGAC | F600Sample70_150220 | | | | µg/L | 0.041 | | |
| Municipal Water Supply | PB-GAC-ACT | PB-PWS-7 | MidTreatmentWater | PostGAC | F600Sample81_150223 | | | | µg/L | 0.047 | | |
| Municipal Water Supply | PWS Sampling | PB-PWS-7 | DrinkingWater | Raw Water | GW0003 | | | | µg/L | 0.092 | | |
| Municipal Water Supply | PWS Sampling | PB-PWS-7 | DrinkingWater | Raw Water | GW0004 | | | | µg/L | 0.088 | | |
| Municipal Water Supply | PWS Sampling | PB-PWS-7 | DrinkingWater | Treated Water | GW0005 | | | | µg/L | 0.096 | | |
| Municipal Water Supply | PWS Sampling | PB-PWS-7 | DrinkingWater | Raw Water | GW0099_20140410 | | | | µg/L | 0.095 | | |
| Municipal Water Supply | PWS Sampling | PB-PWS-7 | DrinkingWater | Raw Water | GW0100_20140410 | | | | µg/L | 0.080 | | |
| Municipal Water Supply | PWS Sampling | PB-PWS-7 | DrinkingWater | Treated Water | GW0101_20140410 | | | | µg/L | 0.100 | | |
| Municipal Water Supply | PWS Sampling | PB-PWS-7 | DrinkingWater | MidTreatment Water | GW0102_20140410 | | | | µg/L | 0.100 | | |
| Municipal Water Supply | Paulsboro6Month | PB-PWS-8 | Groundwater | Raw Water | GW0201_20141216 | | | | µg/L | 0.014 | J | 19 |
| Municipal Water Supply | Paulsboro6Month | PB-PWS-8 | DrinkingWater | Treated Water | GW0202_20141216 | | | | µg/L | 0.015 | J | |
| Municipal Water Supply | Paulsboro6Month | PB-PWS-8 | Groundwater | Raw Water | GW0205_20150114 | | | | µg/L | 0.017 | | |
| Municipal Water Supply | Paulsboro6Month | PB-PWS-8 | DrinkingWater | Treated Water | GW0206_20150114 | | | | µg/L | 0.018 | | |
| Municipal Water Supply | Paulsboro6Month | PB-PWS-8 | DrinkingWater | Treated Water | GW0207_20150114 | X | | | µg/L | 0.017 | | |
| Municipal Water Supply | Paulsboro6Month | PB-PWS-8 | Groundwater | Raw Water | GW0211_20150218 | | | | µg/L | 0.014 | | |
| Municipal Water Supply | Paulsboro6Month | PB-PWS-8 | DrinkingWater | Treated Water | GW0212_20150218 | | | | µg/L | 0.017 | | |
| Municipal Water Supply | Paulsboro6Month | PB-PWS-8 | DrinkingWater | Treated Water | GW0222_20150527 | | | | µg/L | 0.016 | | |
| Municipal Water Supply | Paulsboro6Month | PB-PWS-8 | Groundwater | Raw Water | GW0221_20150527 | | | | µg/L | 0.014 | | |
| Municipal Water Supply | Paulsboro6Month | PB-PWS-8 | Groundwater | Raw Water | GW0225_20150527 | X | | | µg/L | 0.016 | | |
| Municipal Water Supply | PWS Sampling | PB-PWS-8 | DrinkingWater | Raw Water | GW0001 | | | | µg/L | 0.015 | | |
| Municipal Water Supply | PWS Sampling | PB-PWS-8 | DrinkingWater | Raw Water | GW0096_20140410 | | | | µg/L | 0.013 | | |
| Municipal Water Supply | PWS Sampling | PB-PWS-8 | DrinkingWater | Treated Water | GW0098_20140410 | | | | µg/L | 0.014 | | |
| Municipal Water Supply | PWS Sampling | PB-PWS-8 | Groundwater | Treated Water | GW0162_20140708 | | | | µg/L | 0.015 | | |
| Municipal Water Supply | PWS Sampling | PB-PWS-8 | DrinkingWater | Treated Water | GW0168_20140925 | | | | µg/L | 0.015 | | |
| Municipal Water Supply | Paulsboro6Month | PB-PWS-9 | Groundwater | Raw Water | GW0203_20141216 | | | | µg/L | 0.013 | J | 20 |
| Municipal Water Supply | Paulsboro6Month | PB-PWS-9 | Groundwater | Raw Water | GW0204_20141216 | X | | | µg/L | 0.013 | J | |
| Municipal Water Supply | Paulsboro6Month | PB-PWS-9 | Groundwater | Raw Water | GW0208_20150114 | | | | µg/L | 0.014 | | |
| Municipal Water Supply | Paulsboro6Month | PB-PWS-9 | Groundwater | Raw Water | GW0213_20150218 | | | | µg/L | 0.013 | | |
| Municipal Water Supply | Paulsboro6Month | PB-PWS-9 | Groundwater | Raw Water | GW0214_20150218 | X | | | µg/L | 0.014 | | |
| Municipal Water Supply | Paulsboro6Month | PB-PWS-9 | Groundwater | Treated Water | GW0216_20150312 | | | | µg/L | 0.010 | | |
| Municipal Water Supply | Paulsboro6Month | PB-PWS-9 | Groundwater | Raw Water | GW0223_20150527 | | | | µg/L | 0.011 | J- | |
| Municipal Water Supply | PWS Sampling | PB-PWS-9 | DrinkingWater | Raw Water | GW0097_20140410 | | | | µg/L | 0.010 | | |
| Municipal Water Supply | PWS Sampling | PB-PWS-9 | Groundwater | Raw Water | GW0164_20140708 | | | | µg/L | 0.011 | | |
| Municipal Water Supply | PWS Sampling | PB-PWS-9 | Groundwater | Raw Water | GW0169_20140925 | | | | µg/L | 0.013 | | |
| Municipal Water Supply | PWS Sampling | Port break area sink | DrinkingWater | Drinking Water | GW0172_20140925 | | | | µg/L | 0.015 | | 21 |
| Municipal Water Supply | PWS Sampling | Red Bank tank - hydrant | DrinkingWater | Drinking Water | GW0046_20140123 | | | | µg/L | 0.013 | | 22 |
| Municipal Water Supply | PWS Sampling | WB-PWS-7 | DrinkingWater | Raw Water | GW0017 | | | | µg/L | 0.050 | | 23 |
| Municipal Water Supply | PWS Sampling | WB-PWS-7 | DrinkingWater | Treated Water | GW0018 | | | | µg/L | 0.045 | | |
| Municipal Water Supply | PWS Sampling | WB-PWS-7 | DrinkingWater | Raw Water | GW0070_20140206 | | | | µg/L | 0.073 | | |
| Municipal Water Supply | PWS Sampling | WB-PWS-7 | DrinkingWater | Treated Water | GW0071_20140206 | | | | µg/L | 0.061 | | |
| Municipal Water Supply | PWS Sampling | WB-PWS-7 | DrinkingWater | Treated Water | GW0078_20140325 | | | | µg/L | 0.050 | | |
| Municipal Water Supply | PWS Sampling | WB-PWS-7 | DrinkingWater | Raw Water | GW0079_20140325 | | | | µg/L | 0.068 | | |
| Municipal Water Supply | PWS Sampling | WB-PWS-8 | DrinkingWater | Treated Water | GW0014 | | | | µg/L | 0.013 | | 24 |
| Municipal Water Supply | PWS Sampling | WB-PWS-8 | DrinkingWater | Raw Water | GW0015 | | | | µg/L | 0.013 | | |

**Table 1. Summary of Sample Results for PFNA between 0.01 and 0.100 parts per billion (ppb) or micrograms per liter (µg/L)**

| Study Investigation | Study | Location ID | Sample Matrix | Sample Type | Sample ID | Field Duplicate | Upper Depth | Lower Depth | Units | PFNA | Flag | Count of Unique Locations |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Municipal Water Supply | PWS Sampling | WB-PWS-8 | DrinkingWater | Raw Water | GW0016 | | | | µg/L | 0.012 | | |
| Municipal Water Supply | PWS Sampling | WB-PWS-8 | DrinkingWater | Raw Water | GW0072_20140206 | | | | µg/L | 0.014 | | |
| Municipal Water Supply | PWS Sampling | WB-PWS-8 | DrinkingWater | Raw Water | GW0073_20140206 | X | | | µg/L | 0.015 | | |
| Municipal Water Supply | PWS Sampling | WB-PWS-8 | DrinkingWater | Treated Water | GW0074_20140206 | | | | µg/L | 0.062 | | |
| Municipal Water Supply | PWS Sampling | WB-PWS-8 | DrinkingWater | Raw Water | GW0092_20140325 | | | | µg/L | 0.015 | | |
| Municipal Water Supply | PWS Sampling | WB-PWS-8 | DrinkingWater | Raw Water | GW0093_20140325 | X | | | µg/L | 0.015 | | |
| Municipal Water Supply | PWS Sampling | WB-PWS-8 | DrinkingWater | Treated Water | GW0094_20140325 | | | | µg/L | 0.056 | | |
| Municipal Water Supply | PWS Sampling | WB-PWS-8 | DrinkingWater | Raw Water | GW0127_20140424 | | | | µg/L | 0.014 | | |
| Municipal Water Supply | PWS Sampling | WB-PWS-8 | DrinkingWater | Treated Water | GW0125_20140424 | | | | µg/L | 0.017 | | |
| Municipal Water Supply | PWS Sampling | WB-PWS-8 | DrinkingWater | Treated Water | GW0126_20140424 | X | | | µg/L | 0.017 | | |
| Municipal Water Supply | PWS Sampling | WB-PWS-8 | Groundwater | Treated Water | GW0158_20140619 | | | | µg/L | 0.019 | | |
| Municipal Water Supply | PWS Sampling | WB-PWS-8 | Groundwater | Treated Water | GW0160_20140619 | X | | | µg/L | 0.018 | | |
| Municipal Water Supply | PWS Sampling | WB-PWS-8 | DrinkingWater | Treated Water | GW0182_20141009 | | | | µg/L | 0.017 | | |
| Municipal Water Supply | PWS Sampling | WB-PWS-8 | DrinkingWater | Treated Water | GW0183_20141009 | X | | | µg/L | 0.016 | | |
| Municipal Water Supply | PWS Sampling | WD-PWS-3 | DrinkingWater | Raw Water | GW0049 | | | | µg/L | 0.038 | J | 25 |
| Municipal Water Supply | PWS Sampling | WD-PWS-3 | DrinkingWater | Raw Water | MUA-WELL3-GW-RW | | | | µg/L | 0.038 | | |
| Municipal Water Supply | PWS Sampling | WD-PWS-3 | DrinkingWater | Raw Water | GW0049_20140123 | | | | µg/L | 0.036 | | |
| Municipal Water Supply | PWS Sampling | WD-PWS-3 | DrinkingWater | Raw Water | GW0050_20140123 | X | | | µg/L | 0.037 | | |
| Municipal Water Supply | PWS Sampling | WD-PWS-3 | DrinkingWater | Raw Water | GW0128_20140501 | | | | µg/L | 0.026 | | |
| Municipal Water Supply | PWS Sampling | WD-PWS-3 | Groundwater | Raw Water | GW0175_20140717 | | | | µg/L | 0.030 | | |
| Municipal Water Supply | PWS Sampling | WD-PWS-3 | Groundwater | Raw Water | GW0188_20141016 | | | | µg/L | 0.029 | | |
| Municipal Water Supply | PWS Sampling | WD-PWS-5 | DrinkingWater | Raw Water | GW0052 | | | | µg/L | 0.018 | U | 26 |
| Municipal Water Supply | PWS Sampling | WD-Restroom sink tap | DrinkingWater | Drinking Water | GW0025 | | | | µg/L | 0.013 | | 27 |
| Municipal Water Supply | PWS Sampling | WV-PWS-5 | Groundwater | Treated Water | GW0147_20140508 | | | | µg/L | 0.011 | | 28 |
| Municipal Water Supply | PWS Sampling | WV-PWS-5 | Groundwater | Treated Water | GW0148_20140508 | X | | | µg/L | 0.011 | | |
| Private Residence | PrivateWellSampling | RES0038.A | DrinkingWater | Raw Water | PW00039_20140528_r | | | | µg/L | 0.014 | | 29 |
| Private Residence | PrivateWellSampling | RES0043.A | DrinkingWater | Raw Water | PW00045_20140521_r | | | | µg/L | 0.034 | | 30 |
| Private Residence | PrivateWellSampling | RES0060.A | DrinkingWater | Raw Water | PW00065_20140603 | | | | µg/L | 0.016 | | 31 |
| Private Residence | PrivateWellSampling | RES0060.A | DrinkingWater | Raw Water | PW00665_20140603_d | X | | | µg/L | 0.016 | | |
| Private Residence | PrivateWellSampling | RES0061.A | DrinkingWater | Raw Water | PW00063_20140606_r | | | | µg/L | 0.039 | | 32 |
| Private Residence | PrivateWellSampling | RES0063.A | DrinkingWater | Raw Water | PW00066_20140520_r | | | | µg/L | 0.100 | | 33 |
| Private Residence | PrivateWellSampling | RES0097.A | DrinkingWater | Treated Water | PW00101_20140520_t | | | | µg/L | 0.037 | | 34 |
| Private Residence | PrivateWellSampling | RES0099.A | DrinkingWater | Raw Water | PW00103_20140709_r | | | | µg/L | 0.029 | | 35 |
| Private Residence | PrivateWellSampling | RES0114.A | DrinkingWater | Raw Water | PW00119_20140709_r | | | | µg/L | 0.013 | | 36 |
| Private Residence | PrivateWellSampling | RES0121.A | DrinkingWater | Raw Water | PW00126_20140604_r | | | | µg/L | 0.052 | | 37 |
| Private Residence | PrivateWellSampling | RES0122.A | DrinkingWater | Raw Water | PW00127_20140604_r | | | | µg/L | 0.050 | | 38 |
| Private Residence | PrivateWellSampling | RES0122.A | DrinkingWater | Raw Water | PW01127_20140604_d | X | | | µg/L | 0.048 | | |
| Private Residence | PrivateWellSampling | RES0122.A | DrinkingWater | Treated Water | PW02127_20140604_t | | | | µg/L | 0.056 | | |
| Private Residence | PrivateWellSampling | RES0124.A | DrinkingWater | Raw Water | PW00129_20140604_r | | | | µg/L | 0.012 | | 39 |
| Private Residence | PrivateWellSampling | RES0124.A | DrinkingWater | Treated Water | PW01129_20140604_t | | | | µg/L | 0.016 | | |
| Private Residence | PrivateWellSampling | RES0126.A | DrinkingWater | Raw Water | PW00131_20140604_r | | | | µg/L | 0.016 | | 40 |
| Private Residence | PrivateWellSampling | RES0126.A | DrinkingWater | Treated Water | PW00231_20140604_t | | | | µg/L | 0.014 | | |
| Private Residence | PrivateWellSampling | RES0130.A | DrinkingWater | Raw Water | PW00135_20140617_r | | | | µg/L | 0.016 | | 41 |
| Private Residence | PrivateWellSampling | RES0144.A | DrinkingWater | Raw Water | PW00152_20140603_r | | | | µg/L | 0.081 | | 42 |
| Private Residence | PrivateWellSampling | RES0144.A | DrinkingWater | Treated Water | PW00153_20140603_t | | | | µg/L | 0.079 | | |
| Private Residence | PrivateWellSampling | RES0146.A | DrinkingWater | Raw Water | PW00201_20140605_r | | | | µg/L | 0.014 | | 43 |
| Private Residence | PrivateWellSampling | RES0156.A | DrinkingWater | Drinking Water | PW01156_20141205 | | | | µg/L | 0.013 | | 44 |
| Private Residence | PrivateWellSampling | RES0161.A | Groundwater | Treated Water | PW00886_20150804 | | | | µg/L | 0.028 | | 45 |
| Private Residence | PrivateWellSampling | RES0161.A | Groundwater | Treated Water | PW00887_20150804 | X | | | µg/L | 0.027 | | |
| Private Residence | PrivateWellSampling | RES0162.A | Groundwater | Raw Water | PW00888_20150812 | | | | µg/L | 0.028 | | 46 |
| Private Residence | PrivateWellSampling | RES0164.A | DrinkingWater | Treated Water | PW0889_20150911 | | | | µg/L | 0.028 | | 47 |

**Table 1. Summary of Sample Results for PFNA between 0.01 and 0.100 parts per billion (ppb) or micrograms per liter (µg/L)**

| Study Investigation | Study | Location ID | Sample Matrix | Sample Type | Sample ID | Field Duplicate | Upper Depth | Lower Depth | Units | PFNA | Flag | Count of Unique Locations |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TWP | VertProfTempWellPt | TWP-1 | Groundwater | | GW1004_20140905 | | 73 | 77 | µg/L | 0.012 | | 48 |
| TWP | VertProfTempWellPt | TWP-3 | Groundwater | | GW1019_20140917 | | 123 | 127 | µg/L | 0.028 | | 49 |
| TWP | VertProfTempWellPt | TWP-3 | Groundwater | | GW1020_20140918 | | 143 | 147 | µg/L | 0.015 | | |
| TWP | VertProfTempWellPt | TWP-3 | Groundwater | | GW1021_20140922 | | 163 | 167 | µg/L | 0.049 | | |
| TWP | VertProfTempWellPt | TWP-3 | Groundwater | | GW1022_20140923 | | 183 | 187 | µg/L | 0.042 | | |
| TWP | VertProfTempWellPt | TWP-4 | Groundwater | | GW1024_20140925 | | 83 | 87 | µg/L | 0.033 | | 50 |
| TWP | VertProfTempWellPt | TWP-4 | Groundwater | | GW1027_20140929 | | 143 | 147 | µg/L | 0.032 | | |
| TWP | VertProfTempWellPt | TB-77 | Groundwater | | GW1060_20150924 | | 92 | 97 | µg/L | 0.034 | | 51 |
| TWP | VertProfTempWellPt | TB-81 | Groundwater | | GW1049_20150818 | | 81 | 86 | µg/L | 0.030 | U | 52 |

Notes:
J = the associated numerical value is an estimated quantity
J+ = the associated numerical value is an estimated quantity with the possibility of a high bias
J- = the associated numerical value is an estimated quantity with the possibility of a low bias
U = the chemical was analyzed for, but was not detected. The associated numerical value is the sample method reporting limit.

**Table 2. Summary of Sample Results for PFNA greater than 0.100 parts per billion (ppb) or micrograms per liter (µg/L)**

| Study Investigation | Study | Location ID | Sample Matrix | Sample Type | Sample ID | Field Duplicate | Upper Depth | Lower Depth | Units | PFNA | Flag | Count of Unique Locations |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Monitoring Wells | OnsiteOffsiteSampling | M/H-1D | Groundwater | | GW0001_20140313 | | | | µg/L | 2.46 | D | 1 |
| Monitoring Wells | OnsiteOffsiteSampling | M/H-2D | Groundwater | | GW0002_20140311 | | | | µg/L | 482 | J | 2 |
| Monitoring Wells | OnsiteOffsiteSampling | M/H-4 | Groundwater | | GW0003_20140314 | | | | µg/L | 10.3 | B D | 3 |
| Monitoring Wells | OnsiteOffsiteSampling | M/H-4D | Groundwater | | GW0004_20140313 | | | | µg/L | 12.6 | B D | 4 |
| Monitoring Wells | OnsiteOffsiteSampling | M/H-6D | Groundwater | | GW0005_20140314 | | | | µg/L | 0.83 | B | 5 |
| Monitoring Wells | OnsiteOffsiteSampling | M/H-7D | Groundwater | | GW0006_20140311 | | | | µg/L | 7.25 | D | 6 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-1 | Groundwater | | GW0007_20140312 | | | | µg/L | 11.3 | D | 7 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-10I | Groundwater | | GW0009_20140313 | | | | µg/L | 123 | D | 8 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-10S | Groundwater | | GW0010_20140313 | | | | µg/L | 3.54 | D | 9 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-11D | Groundwater | | GW0012_20140312 | | | | µg/L | 4.33 | D | 10 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-11DD | Groundwater | | GW0013_20140312 | | | | µg/L | 1.38 | | 11 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-15S | Groundwater | | GW0014_20140313 | | | | µg/L | 4.77 | D | 12 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-17S | Groundwater | | GW0015_20140313 | | | | µg/L | 4.53 | D | 13 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-18D | Groundwater | | GW0034_20140321 | | | | µg/L | 1.01 | | 14 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-18I | Groundwater | | GW0035_20140321 | | | | µg/L | 18 | | 15 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-18S | Groundwater | | GW0036_20140321 | | | | µg/L | 3.11 | | 16 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-19D | Groundwater | | GW0037_20140321 | | | | µg/L | 17 | | 17 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-19I | Groundwater | | GW0038_20140321 | | | | µg/L | 26.8 | | 18 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-19S | Groundwater | | GW0039_20140321 | | | | µg/L | 3.1 | | 19 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-1D | Groundwater | | GW0008_20140312 | | | | µg/L | 16.5 | D | 20 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-24D | Groundwater | | GW0016_20140313 | | | | µg/L | 1.83 | | 21 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-24I | Groundwater | | GW0017_20140313 | | | | µg/L | 1.63 | J | 22 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-25D | Groundwater | | GW0044_20140320 | | | | µg/L | 1.78 | U | 23 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-25IL | Groundwater | | GW0043_20140320 | | | | µg/L | 8.38 | U | 24 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-25IU | Groundwater | | GW0041_20140320 | | | | µg/L | 11.6 | U | 25 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-25IU | Groundwater | | GW0042_20140320 | X | | | µg/L | 12.8 | U | |
| Monitoring Wells | OnsiteOffsiteSampling | MW-25S | Groundwater | | GW0040_20140320 | | | | µg/L | 1.63 | U | 26 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-26D | Groundwater | | GW0048_20140318 | | | | µg/L | 1.04 | | 27 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-26IL | Groundwater | | GW0047_20140312 | | | | µg/L | 7.03 | D | 28 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-26IU | Groundwater | | GW0046_20140318 | | | | µg/L | 6.56 | D | 29 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-26S | Groundwater | | GW0045_20140312 | | | | µg/L | 1.7 | | 30 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-27IU | Groundwater | | GW0050_20140317 | | | | µg/L | 8.99 | B D | 31 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-27S | Groundwater | | GW0049_20140317 | | | | µg/L | 15.2 | B D | 32 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-28IL | Groundwater | | GW0007_20140417 | | | | µg/L | 24.6 | | 33 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-28IL | Groundwater | | GW0008_20140417 | X | | | µg/L | 24.2 | | |
| Monitoring Wells | OnsiteOffsiteSampling | MW-28S | Groundwater | | GW0051_20140317 | | | | µg/L | 6.12 | B D | 34 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-29IU | Groundwater | | GW0054_20140317 | | | | µg/L | 9.81 | B D | 35 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-29S | Groundwater | | GW0009_20140417 | | | | µg/L | 1.37 | J | 36 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-30D | Groundwater | | GW0058_20140318 | | | | µg/L | 0.87 | | 37 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-30IL | Groundwater | | GW0057_20140318 | | | | µg/L | 11.7 | D | 38 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-30IU | Groundwater | | GW0056_20140318 | | | | µg/L | 9.89 | D | 39 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-30S | Groundwater | | GW0055_20140318 | | | | µg/L | 0.39 | | 40 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-31IU | Groundwater | | GW0060_20140318 | | | | µg/L | 2.61 | B D | 41 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-31S | Groundwater | | GW0059_20140318 | | | | µg/L | 1.1 | B | 42 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-32IU | Groundwater | | GW0062_20140320 | | | | µg/L | 3.88 | U | 43 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-32IU | Groundwater | | GW0063_20140320 | X | | | µg/L | 3.83 | U | |
| Monitoring Wells | OnsiteOffsiteSampling | MW-32S | Groundwater | | GW0061_20140320 | | | | µg/L | 3.73 | U | 44 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-33S | Groundwater | | GW0010_20140417 | | | | µg/L | 2.49 | | 45 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-34D | Groundwater | | GW0012_20140417 | | | | µg/L | 5 | | 46 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-34I | Groundwater | | GW0011_20140417 | | | | µg/L | 4.32 | | 47 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-35D | Groundwater | | GW0014_20140417 | | | | µg/L | 4.52 | | 48 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-35I | Groundwater | | GW0013_20140417 | | | | µg/L | 9.87 | | 49 |

**Table 2. Summary of Sample Results for PFNA greater than 0.100 parts per billion (ppb) or micrograms per liter (µg/L)**

| Study Investigation | Study | Location ID | Sample Matrix | Sample Type | Sample ID | Field Duplicate | Upper Depth | Lower Depth | Units | PFNA | Flag | Count of Unique Locations |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Monitoring Wells | OnsiteOffsiteSampling | MW-36D | Groundwater | | GW0015_20140417 | | | | µg/L | 2.68 | | 50 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-3D | Groundwater | | GW0018_20140312 | | | | µg/L | 0.18 | | 51 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-5D | Groundwater | | GW0019_20140311 | | | | µg/L | 2.97 | D | 52 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-5DD | Groundwater | | GW0020_20140311 | | | | µg/L | 2.73 | D | 53 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-5DD | Groundwater | | GW0021_20140311 | X | | | µg/L | 1.95 | | |
| Monitoring Wells | OnsiteOffsiteSampling | MW-5I | Groundwater | | GW0022_20140311 | | | | µg/L | 3.4 | D | 54 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-6I | Groundwater | | GW0024_20140312 | | | | µg/L | 25.8 | D | 55 |
| Monitoring Wells | OnsiteOffsiteSampling | MW-6S | Groundwater | | GW0025_20140312 | | | | µg/L | 5.18 | D | 56 |
| Monitoring Wells | OnsiteOffsiteSampling | P-2S | Groundwater | | GW0026_20140313 | | | | µg/L | 1.8 | | 57 |
| Monitoring Wells | OnsiteOffsiteSampling | P-5S | Groundwater | | GW0027_20140313 | | | | µg/L | 60 | B D | 58 |
| Monitoring Wells | OnsiteOffsiteSampling | P-6S | Groundwater | | GW0028_20140314 | | | | µg/L | 30.4 | B D | 59 |
| Monitoring Wells | OnsiteOffsiteSampling | PZ-3I | Groundwater | | GW0005_20140418 | | | | µg/L | 0.24 | | 60 |
| Monitoring Wells | OnsiteOffsiteSampling | PZ-3S | Groundwater | | GW0006_20140418 | | | | µg/L | 1.18 | | 61 |
| Monitoring Wells | OnsiteOffsiteSampling | PZ-5 | Groundwater | | GW0001_20140418 | | | | µg/L | 0.23 | | 62 |
| Monitoring Wells | OnsiteOffsiteSampling | PZ-5 | Groundwater | | GW0002_20140418 | X | | | µg/L | 0.27 | | |
| Monitoring Wells | OnsiteOffsiteSampling | PZ-6 | Groundwater | | GW0003_20140418 | | | | µg/L | 0.18 | | 63 |
| Monitoring Wells | OnsiteOffsiteSampling | WCC-1 | Groundwater | | GW0029_20140313 | | | | µg/L | 1.68 | B | 64 |
| Monitoring Wells | OnsiteOffsiteSampling | WCC-2 | Groundwater | | GW0030_20140311 | | | | µg/L | 11 | D | 65 |
| Monitoring Wells | OnsiteOffsiteSampling | WCC-3 | Groundwater | | GW0031_20140313 | | | | µg/L | 25.9 | D | 66 |
| Monitoring Wells | OnsiteOffsiteSampling | WCC-5 | Groundwater | | GW0032_20140313 | | | | µg/L | 14.1 | B D | 67 |
| Monitoring Wells | OnsiteOffsiteSampling | WCC-7 | Groundwater | | GW0033_20140311 | | | | µg/L | 6.24 | D | 68 |
| Municipal Water Supply | PB-GAC-ACT | PB-PWS-7 | MidTreatmentWater | MidTreatment Water | GW0209_20150129 | | | | µg/L | 0.14 | | 69 |
| Municipal Water Supply | PB-GAC-ACT | PB-PWS-7 | MidTreatmentWater | MidTreatment Water | GW0210_20150129 | X | | | µg/L | 0.15 | | |
| Municipal Water Supply | PB-GAC-ACT | PB-PWS-7 | MidTreatmentWater | PreGAC | FeedSample1_20150203 | | | | µg/L | 0.15 | | |
| Municipal Water Supply | PB-GAC-ACT | PB-PWS-7 | MidTreatmentWater | PreGAC | FeedSample2_20150210 | | | | µg/L | 0.14 | | |
| Municipal Water Supply | PB-GAC-ACT | PB-PWS-7 | MidTreatmentWater | PreGAC | FeedSample3_20150227 | | | | µg/L | 0.12 | | |
| Municipal Water Supply | PWS Sampling | PB-PWS-7 | DrinkingWater | Treated Water | GW0006 | | | | µg/L | 0.11 | | |
| Municipal Water Supply | PWS Sampling | PB-PWS-7 | Groundwater | Raw Water | GW0161_20140708 | | | | µg/L | 0.14 | | |
| Municipal Water Supply | PWS Sampling | PB-PWS-7 | Groundwater | Raw Water | GW0163_20140708 | X | | | µg/L | 0.14 | | |
| Municipal Water Supply | PWS Sampling | PB-PWS-7 | Groundwater | Raw Water | GW0167_20140925 | | | | µg/L | 0.15 | | |
| Municipal Water Supply | PWS Sampling | PB-PWS-7 | Groundwater | Raw Water | GW0170_20140925 | X | | | µg/L | 0.14 | | |
| Municipal Water Supply | PWS Sampling | WB-PWS-7 | Groundwater | Raw Water | GW0157_20140619 | | | | µg/L | 0.12 | | 70 |
| Municipal Water Supply | PWS Sampling | WB-PWS-7 | Groundwater | Raw Water | GW0181_20141009 | | | | µg/L | 0.12 | | |
| Municipal Water Supply | PWS Sampling | WD-PWS-3 | DrinkingWater | Raw Water | GW0050 | | | | µg/L | 0.52 | J | 71 |
| Private Residence | PrivateWellSampling | RES0050.B | DrinkingWater | Raw Water | PW00352_20140520 | | | | µg/L | 0.18 | | 72 |
| Private Residence | PrivateWellSampling | RES0095.A | DrinkingWater | Raw Water | PW00099_20140520_r | | | | µg/L | 1.5 | | 73 |
| Private Residence | PrivateWellSampling | RES0096.A | DrinkingWater | Raw Water | PW00100_20140520_r | | | | µg/L | 0.64 | | 74 |
| Private Residence | PrivateWellSampling | RES0097.A | DrinkingWater | Raw Water | PW00301_20140520_r | | | | µg/L | 0.23 | | 75 |
| Private Residence | PrivateWellSampling | RES0103.A | DrinkingWater | Raw Water | PW00108_20140617_r | | | | µg/L | 0.65 | | 76 |
| Private Residence | PrivateWellSampling | RES0117.A | DrinkingWater | Raw Water | PW00122_20140605_r | | | | µg/L | 0.14 | | 77 |
| Private Residence | PrivateWellSampling | RES0118.A | DrinkingWater | Raw Water | PW00123_20140605_r | | | | µg/L | 0.12 | | 78 |
| Private Residence | PrivateWellSampling | RES0160.A | Groundwater | Raw Water | PW00160_20140717 | | | | µg/L | 0.19 | | 79 |
| TWP | VertProfTempWellPt | MW-41D | Groundwater | | GW1053_20150826 | | 32 | 37 | µg/L | 0.401 | | 80 |
| TWP | VertProfTempWellPt | MW-41D | Groundwater | | GW1054_20150827 | | 82 | 87 | µg/L | 1.11 | | |
| TWP | VertProfTempWellPt | MW-41D | Groundwater | | GW1055_20150831 | | 117 | 122 | µg/L | 0.412 | | |
| TWP | VertProfTempWellPt | MW-41D | Groundwater | | GW1056_20150903 | | 132 | 137 | µg/L | 0.649 | | |
| TWP | VertProfTempWellPt | TB-77 | Groundwater | | GW1061_20150924 | | 122 | 127 | µg/L | 0.187 | | 81 |
| TWP | VertProfTempWellPt | TB-77 | Groundwater | | GW1062_20150929 | | 180 | 185 | µg/L | 0.336 | | |
| TWP | VertProfTempWellPt | TB-77 | Groundwater | | GW1063_20150930 | | 212 | 217 | µg/L | 0.155 | | |
| TWP | VertProfTempWellPt | TB-78 | Groundwater | | GW1057_20150914 | | 132 | 137 | µg/L | 0.340 | | 82 |
| TWP | VertProfTempWellPt | TB-78 | Groundwater | | GW1058_20150916 | | 180 | 185 | µg/L | 0.449 | | |
| TWP | VertProfTempWellPt | TB-78 | Groundwater | | GW1059_20150921 | | 247 | 252 | µg/L | 0.203 | | |

**Table 2. Summary of Sample Results for PFNA greater than 0.100 parts per billion (ppb) or micrograms per liter (µg/L)**

| Study Investigation | Study | Location ID | Sample Matrix | Sample Type | Sample ID | Field Duplicate | Upper Depth | Lower Depth | Units | PFNA | Flag | Count of Unique Locations |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TWP | VertProfTempWellPt | TB-81 | Groundwater | | GW1050_20150819 | | 122 | 127 | µg/L | 2.07 | | 83 |
| TWP | VertProfTempWellPt | TB-81 | Groundwater | | GW1051_20150820 | | 142 | 147 | µg/L | 1.53 | | |
| TWP | VertProfTempWellPt | TWP-2 | Groundwater | | GW1010_20140910 | | 83 | 87 | µg/L | 0.292 | | 84 |
| TWP | VertProfTempWellPt | TWP-2 | Groundwater | | GW1011_20140911 | | 103 | 107 | µg/L | 0.318 | | |
| TWP | VertProfTempWellPt | TWP-2 | Groundwater | | GW1012_20140911 | | 123 | 127 | µg/L | 0.336 | | |
| TWP | VertProfTempWellPt | TWP-2 | Groundwater | | GW1013_20140912 | | 141 | 145 | µg/L | 0.209 | | |
| TWP | VertProfTempWellPt | TWP-4 | Groundwater | | GW1025_20140926 | | 103 | 107 | µg/L | 0.117 | | 85 |
| TWP | VertProfTempWellPt | TWP-4 | Groundwater | | GW1026_20140926 | | 123 | 127 | µg/L | 0.114 | | |

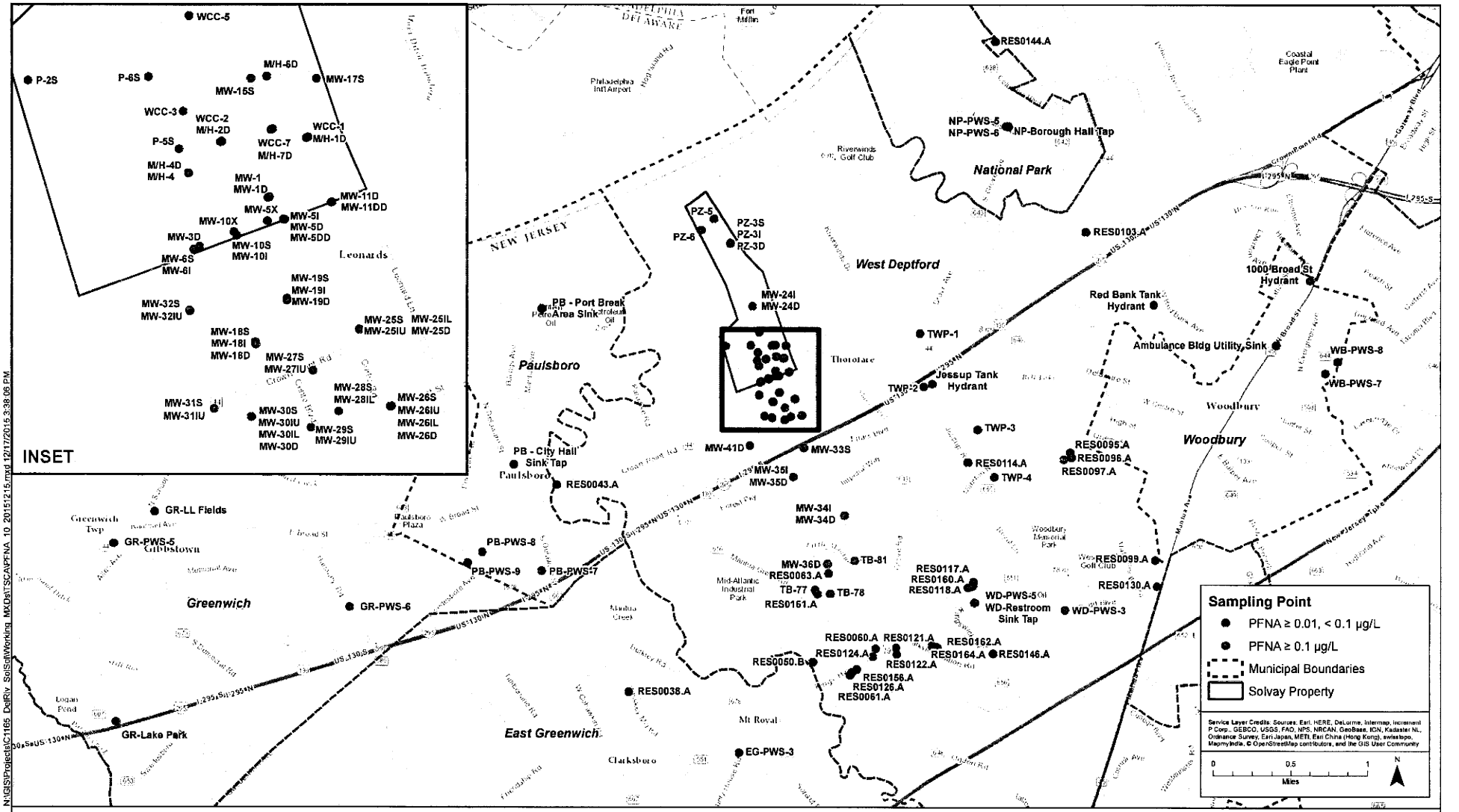
Notes:

B = the associated numerical value is qualified based on measured concentrations in the blank sample

D = the concentration was measured following the application of a dilution

J = the associated numerical value is an estimated quantity

U = the chemical was analyzed for, but was not detected. The associated numerical value is the sample method reporting limit.

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integral

**Figure 1.**
Groundwater Monitoring Results for PFNA


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2. Fold the printed page along the horizontal line.
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